Remarks

Claims 1-35 are currently pending and stand rejected. Claim 27 has been objected to and has been amended in relation to the objection to now recite a DSLAM. Claims 1, 10, 20, and 27 have also been amended to address the rejections. Applicants assert that the claims are now in condition for allowance as set forth more fully below.

Interview Summary

The undersigned participated in a telephone interview with the Examiner on August 3, 2004. During the interview, deficiencies in the Kaffine reference relative to subject matter of the present invention were discussed. Namely, it was discussed how Kaffine fails to show that any requests are sent from a computer through a router automatically. Kaffine requires that the IDU be contacted by the user computer upon the user experiencing problems in order to begin sending pings through the network as opposed to automatically sending requests. It was further discussed how Kaffine fails to show requests such as pings being sent from the end user computer to a DSLAM through a router that is located in the path of communication between the user computer and the DSLAM. It was agreed that amendments would be made to the claims to more clearly include this subject matter.

102 Rejections

Claims 1, 2, 5, 6, 8-10, 15, 16, 20, 21, 23, 27, 29, 32, and 33 stand rejected under 35 USC 102(e) as being unpatentable over Kaffine (US Pat 6,654,914). Claims 3, 4, 7, 11-14, 17-19, 22, 24-26, 28, 30, 31, 34, and 35 stand rejected under 35 USC 103(a) as being unpatentable over Kaffine in view of various references including Booth (US Pat 6,668,282), Southgate (US Pat 6,205,579), and Welder (US Pat 6,622,179). Applicants respectfully traverse these rejections.

Claims 1-9

The Office Action has rejected claim 1 by stating that Kaffine discloses all of the elements. The Office Action equates the Internet diagnostic unit (IDU) of Kaffine to the end user computer of claim 1 and states that the IDU repeatedly pings toward router 119 and core network 24.

Amended claim 1 recites, among other things, (a) automatically sending, from a user computer, via the router, a request toward a backbone of a network to which a response is expected, (b) determining, in the user computer, whether the response has been received, and (d) periodically repeating at least steps (a) and (b). Thus, the sending of the request each time happens as an automatic process of the user computer as opposed to a user initiating each of the sent requests. This is significant because the user may not interact with the user computer for a lengthy amount of time that might otherwise cause the router to lock up due to inactivity if the user computer did not automatically repeat sending requests via the router. Support for the automatic sending of the user can be found at page 6 and line 12 of the specification, where it is stated that the router is accessed periodically and automatically (i.e., without user intervention).

Kaffine, on the other hand, is not concerned with preventing lock up of the router such as during periods of inactivity of a user but is instead concerned with diagnosing a problem that a user is currently experiencing when trying to communicate through a network. As discussed in Kaffine and as shown in FIG. 3, upon the user experiencing a problem, the user contacts a help line who directs the user to the IDU which the user dials up to initiate communications from the IDU that diagnose the problem the user is experiencing. So, the IDU only begins sending communications to diagnose the problem upon the user contacting the IDU. Claim 1 recites that the end user computer automatically sends the request via the router and further recites that the automatic sending of the request is repeated periodically. There is no request being generated automatically by the IDU of Kaffine since user intervention is required to cause the IDU to being communicating. Accordingly, claim 1 is allowable over Kaffine for at least these reasons.

Dependent claims 2-9 depend from an allowable claim 1 and are also allowable for at least the same reasons.

Claims 10-19

The Office Action has rejected claim 10 by stating that Kaffine discloses all of the elements. The Office Action equates the IDU of Kaffine to the end user computer, and then points to DSLAM 68 and router 64 and states that the user computer 140 with an attached IDU repeatedly transmits a PING request toward DSLAM 68 and router 64.

Amended claim 10 recites, among other things, periodically sending from at least one of the user computers towards a DSL Access Multiplexer (DSLAM) a request to which a response is expected, the request being sent through the router that is located in a path of communication between the at least one of the user computers and the DSLAM. Thus, the request is sent through the router on its way to the DSLAM such that the request need not be passed on from the DSLAM in order for the router to become involved in the transfer of the request. Support for the router being placed between the user computer and the DSLAM is provided in the specification, such as in figure 1 and the related discussion.

Kaffine, on the other hand, discloses that the router 64 is beyond the DSLAM 68 and is not located between the user computer 140 and the DSLAM 68. Therefore, any request sent from the user computer 140 toward the DSLAM 68 does not pass through the router 64 unless the request is first passed on through the DSLAM 68. This is a significant difference from claim 1, as Kaffine must rely on the DSLAM 68 forwarding the request in order to involve the router 64. Accordingly, claim 10 is allowable over Kaffine for at least these reasons.

Dependent claims 11-19 depend from an allowable claim 10 and are also allowable for at least the same reasons.

Claims 20-26

The Office Action has rejected claim 20 by stating that Kaffine discloses all of the elements. The Office Action equates an IDU attached to the user computer with the end user computer. However, amended claim 20 recites that the pings are generated automatically and as noted above in relation to claim 1, the IDU of Kaffine only generates communications upon being dialed-up and initiated by a user, which is contrary to automatically sending pings. Therefore, claim 20 is allowable of Kaffine for at least

these reasons, and dependent claims 21-26 depend from an allowable claim 20 and are also allowable for at least the same reasons.

Claims 27-35

The Office Action has rejected claim 27 in conjunction with the rejection of claim 10 by stating that Kaffine discloses all of the elements. However, amended claims recites that the router is located in the path of communication between the end user computer and the DSLAM. As discussed above in relation to claim 10, Kaffine does not disclose sending communications between an end user computer 140 and a DSLAM 68 where a router is in the communication path between them since the router 64 is beyond the DSLAM 68. Therefore, claim 27 is allowable over Kaffine for at least these reasons, and dependent claims 28-35 depend from an allowable claim 27 and are also allowable for at least the same reasons.

103 Rejections

Each of the claims rejected under section 103 depend from either claim 1, 10, 20, or 27. As these base claims are allowable as discussed above, the dependent claims rejected under section 103 are also allowable for at least the same reasons.
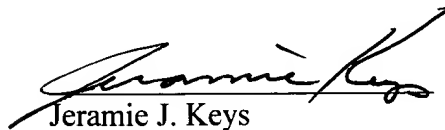
Conclusion

Applicants assert that the application including claims 1-35 is now in condition for allowance. Applicants request reconsideration in view of the amendments and remarks above and further request that a Notice of Allowability be provided. Should the Examiner have any questions, please contact the undersigned.

No fees beyond the noted fee for continued examination are believed due. However, please charge any additional fees or credit any overpayment to Deposit Account No. 50-3025.

Respectfully submitted,

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